GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:2463
ANSWERED ON:19.03.2002
DEVELOPMENT OF COST EFFECTIVE AND SAFE MEDICINES
YEMPARALA VENKATESWARA RAO

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether attention of the Government has been drawn to the statement of Sir Richard Sykesreported in `Indian Express` dated January 9, 2002, that biotechnology can help in developing cost effective and safe medicines;

(b) if so, the present stage of research being made in this regard in India; and

(c) the details of further plans in this regard ?

Answer

MINISTER OF STATE FOR SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT)

(a) : Yes Sir; the Government is aware of the statement made by Sir Richard Sykes, which appeared in the Indian Express dated January 9, 2002. The Department of Biotechnology has initiated several programmes to combat important human diseases.

(b) & (c) : The major thrust of the Health Biotechnology has been to develop cost effective diagnostics, generate genetic technologies for vaccines for prophylactic and therapeutic use, design novel drug delivery systems and understand disease processes and immune responses at molecular levels. Programmes relating to pharmacogenomics, bicomputing, microbial and structural genomics, proteomics, Single Nucleotide Polymorphisms(SNPs) and their association with diseases like hypertension, coronary heart disease, diabetes, neurological disorders and cancers have been initiated. Stem Cell Biology research and application have also received major fillip.

A good number of diagnostic assay systems have been developed, validated and transferred to the industries. Some have been launched in the market. An immuno-modulator developed as an adjunct to multidrug therapy for leprosy, that reduces the treatment duration and cures the disease, is available for use. Efforts are being made to make available DNA vaccine to control rabies in dogs, in the market. Sixteen genetic clinics and counseling units are functional and have provided services to 16,5000 affected families.

Development of new candidate vaccines for six important diseases like Cholera, Rabies, Tuberculosis, HIV/AIDS, Japanese encephalitis and Malaria under National Jai Vigyan S&T mission are either in preclinical or Phase-I/Phase-II human volunteer trials.

Autonomous institutes/Centres of the Department of Biotechnology are vigorously pursuing basic research on disease manifestation, prevention and control at molecular levels.

While continuing the ongoing efforts, major emphasis in future would be to utilize the information available on the human genome and microbial genome sequence data to identify new targets for drugs and better predictive molecular medicine.